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REMARKS

Claims 33-44 remain in the application.

The Applicant takes note that Claims 36 and 42 are considered allowable by the Examiner.

In Item 2 of the Office Action, the Examiner has objected to the drawings as failing to comply with 37 CFR 1.84(p)(4), "*because reference character '250' has been used to designate both an injection machine (Figure 10) and a motor (Figure 12).*" Accordingly, the Applicant has amended paragraph [0065] of the application by replacing the expression "*a motor 250*" by "*a motor 250A*". Additionally, Figure 12 has been amended to change reference character "250" to reference character "250A".

In Item 3 of the Office Action, the Examiner has objected to the drawings as failing to comply with 37 CFR 1.84(p)(5), as reference sign "20" is missing from Figure 1. Accordingly, the Applicant has inserted reference sign "20" to Figure 1.

In Item 4 of the Office Action, the Examiner has objected to the drawings as failing to comply with 37 CFR 1.84(p)(5), as Figures 5 to 7 include reference sign "76", not mentioned in the description. Accordingly, Applicant has removed reference sign "76" from Figures 5 to 7.

In Item 5 of the Office Action, the Examiner has objected to Claims 37 and 43, as the expression "*adapter*" does not agree with the expression "*adaptor*" as used in paragraph [0082] of the specification. Accordingly, the Applicant has changed the expression "*adapter*" to "*adaptor*" in Claims 37 and 43.

In Item 7 of the Office Action, Claims 33, 35, 38, 39, 41 and 44 are rejected under 35 USC 102(b) as being anticipated by Doucet et al. (U.S. Patent No. 4,601,323). It is firstly pointed out that the Applicant of the present application is the patentee for U.S. Patent No. 4,601,323. In the die-casting industry, die-casting-machine downtime must be minimized to maximize the productivity of the machine. One source of downtime is the replacement of the mold sections from the machine to change the products produced by the machine.

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In the present application, the Applicant describes a mold assembly for a die-casting machine to accelerate the installation and removal of a mold from a shank of the die-casting machine, so as to minimize the downtime and increase productivity. In order to accelerate the installation/removal of the mold, the present application teaches a sliding engagement between mold section and shank for the rapid positioning of the mold section to the shank. Moreover, the mold section is slid into the shank in a direction generally perpendicular to the direction of translation of the shank, such that the clamping of mold sections to one another through translation of the shanks will not exert pressure on the mold sections in the direction of sliding engagement.

The Applicant argues that its U.S. Patent No. 4,601,323 does not provide a mold section assembly for a die-casting machine, as described in Claim 33. More specifically, U.S. Patent No. 4,601,323 briefly describes and illustrates, from line 55 to line 62, and in Figure 7, the interconnection between the mold 58 and the shank 10. No specific details are provided with regard to the interconnection between the mold 58 and the shank 10, and the applicant argues that the state of the art did not include at the time sliding engagement between mold 58 and shank 10. Therefore, U.S. Patent No. 4,601,323 does not teach a mold "*having connection means so as to be slidingly engaged to a leading end of a shank*". This feature is clearly described in paragraphs [0074] to [0083] of the description of the present specification, whereby "*mold section installation and/or removal is rapidly performed*" (paragraph [0076]). Therefore, the sliding engagement between the mold and "*a leading end of a shank*", clearly not disclosed or taught by U.S. Patent No. 4,601,323, causes a rapid installation of the mold to the shank. Accordingly, Applicant believes that Claim 33 patentably distinguishes over U.S. Patent No. 4,601,323. Moreover, Claim 39 has the same limitation that the mold "[has] *connection means so as to be slidingly engaged to a leading end of the shank*", thereby allowing installation of the mold to the shank. Therefore, Applicant believes that Claim 39 patentably distinguishes over U.S. Patent No. 4,601,323.

In Item 8 of the Office Action, the Examiner has cited U.S. Patent No. 6,334,479 and Canadian Patent Application No. 2,308,990. It is pointed out that the Applicant for the present application is the patentee for U.S. Patent No. 6,334,479, and is

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the Applicant for Canadian Patent Application No. 2,308,990. The Applicant points out that these references are associated with a control system for mold clamping and with a reinforcement ring for the die-casting machine, whereby no specific details are given with regard to the mold assembly other than the conventional mounting of a mold to a shank in a die-casting machine. Accordingly, new subject matter was added to the present application in view of these references to describe a sliding engagement embodiment of the mold to the shank. This additional subject matter is in paragraphs [0073] to [0082], and in Figs. 13 to 17, which bring support to the claims presently on file.

More specifically, these references do not teach the mold "*having connection means so as to be slidably engaged to a leading end of a shank*". As mentioned previously, these "*connection means*" are directly associated with the rapid installation of the mold to the shank, which is clearly not taught by the cited references. Accordingly, Claims 33 and 39, both with the limitation that the mold "[has] *connection means so as to be slidably engaged to a leading end of a shank*", patentably distinguish over these cited references.

In Item 12 of the Office Action, the Examiner has objected to Claims 34, 37, 40 and 43 under 35 USC 103(a), as being unpatentable over any one of U.S. Patents No. 4,601,323, No. 6,334,479 and Canadian Patent Application No. 2,308,990, in view of U.S. Patent No. 6,422,297.

The Applicant argues that both Claims 34 and 40 have the limitation that "*an ejector plate [is] retained in the mounting plate*". By having an ejector plate in the mounting plate, the shank is limited to providing actuation to the ejector plate, whereas the ejector plate performs the ejection. Accordingly, an ejector plate can be specifically suited for a given cavity of mold section.

On the other hand, U.S. Patent No. 6,422,297 describes having holes in the mold, as shown by 72 in Fig. 5 thereof, whereby the ejection members are part of the shank. Therefore, the Applicant argues that the ejection described in U.S. Patent No. 6,422,297 is performed from the shank, and thus remains the same for any mold section installed on the shank. This is clearly a disadvantage over the ejection of the present application. Moreover, if the ejectors are to be changed in U.S. Patent

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No. 6,422,297 to better suit the cavity of the mold section, additional downtime is required, and this is another disadvantage over the present application. Therefore, Claims 34 and 40 are deemed to patentably distinguish over the cited references.

Finally, in Claims 37 and 43, an adaptor is described as adapting mold sections of various sizes to a single common shank through a single common mounting plate. Accordingly, it is appreciated that the system of the present application allows a single size of mounting plate for a die-casting machine to be kept in inventory for any size of mold section to be used with the die-casting machine. As opposed to this feature, the adaptor plate 50 of U.S. Patent No. 6,422,297 is used to connect the mold section to an inner cavity of the shank, and is not to be used for adapting any size of mold section to the shank. Accordingly, Claims 37 and 43 are deemed to patentably distinguish over the cited references.

This application is now believed to be in order for allowance, and early notice to this effect is earnestly solicited.

Respectfully submitted,
ALEXANDRE A. POLLAK ET AL.

By:



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(Date)

Guy J. HOULE (Reg. No. 24,971)
Agent of Record
OGILVY RENAULT
1981 McGill College Avenue, Suite 1600
Montreal, Quebec, Canada H3A 2Y3
Tel.: (514)847-4321

Encl. – Amended Figures 1, 5, 6, 7 and 12